

## **REMARKS**

Initially, Applicants would like to express their appreciation to the Examiner for the detailed Official Action provided.

Upon entry of the above amendments, claims 21 and 27 will have been amended. Claims 1-20 and 28-35 have been withdrawn from consideration as directed to a non-elected invention. Applicants allow the withdrawn claims to remain pending, i.e., subject to possible rejoinder.

Applicants respectfully request reconsideration of the rejections, and allowance of all the claims pending in the present application.

### ***Rejection Under 35 U.S.C. § 112***

In the Official Action, the Examiner rejected claims 21 and 23-27 under 35 U.S.C. § 112. Without acquiescing to the propriety of the Examiner's rejection, Applicants submit that claims 21 and 27 have been amended, where appropriate, in order to address the Examiner's concern.

Accordingly, Applicants submit that the rejection under 35 U.S.C. § 112 is believed to be moot, and should be withdrawn.

### ***Rejection Under 35 U.S.C. §102 and 103***

In the Official Action, the Examiner rejected claims 21 and 23-26 under 35 U.S.C. § 102 as being anticipated by OKUNO et al. (U.S. Patent No. 5,338,008); and

the Examiner rejected claim 27 under 35 U.S.C. § 103(a) as being unpatentable over OKUNO in view of CAMPBELL (U.S. Patent No. 4,334,646).

Without acquiescing to the propriety of the Examiner's rejection, Applicants have amended claim 21 solely in order to expedite prosecution of the present Application.

In particular, claim 21 sets forth a solder bump forming apparatus including: the solder composition is made of a mixture of solder particles and a liquid material that contains a flux component, which becomes liquid at a normal temperature or when heated; and a heating device is provided for heating the solder composite from a first side of the substrate; a space through which the substrate is conveyed; and a thermostat device for controlling a temperature of the solder composition is provided at a position above a mount plate, which is located over a second side of the substrate, wherein the thermostat device includes a system in which a cool air or hot air of the thermostat device does not directly come in contact with the solder composition on the substrate within the space.

In setting forth the above rejections, the Examiner apparently considers the air within the space in which the fan 20 is provided as being equivalent to the presently claimed cool air and hot air that *does not* directly come in contact with the solder composition on the substrate (see the last paragraph on page 4 of the Official Action).

Contrary to the Examiner's apparent assertions, Applicants submit that the devices of the applied prior art are structurally very different from the presently claimed invention.

In this regard, Applicants submit that (in OKUNO) air clearly comes into direct contact with the composition (and substrate) as it is conveyed through the space (see Figure 2 of OKUNO). In other words, Applicants submit that the space in which the fan 20 is enclosed (in OKUNO) does not convey a substrate.

Thus, Applicants submit that OKUNO, alone or in any properly reasoned combination, fails to disclose at least the presently claimed heating device is provided for heating the solder composite from a first side of the substrate; a space through which the substrate is conveyed; and

a thermostat device for controlling a temperature of the solder composition is provided at a position above a mount plate, which is located over a second side of the substrate, wherein the thermostat device includes a system in which the cool air or hot air of the thermostat device does not directly come in contact with the solder composition on the substrate within the space, as recited in amended claim 21.

Further, Applicants submit that CAMPBELL does not disclose anything that can reasonably be considered to supply the above-discussed deficiencies in OKUNO.

Accordingly, Applicants submit that the rejection of claims 21 and 23-27 under 35 U.S.C. § 102 and 103 are improper and should be withdrawn.

In view of the remarks herein-contained, Applicants submit that independent claim 21 is in condition for allowance. With regard to dependent claims 23-27, Applicants assert that they are allowable on their own merit, as well as because of their dependencies from independent claim 21, which Applicants have shown to be allowable.

Thus, it is respectfully submitted that all of the claims in the present application are clearly patentable over the references cited by the Examiner, either alone or in combination, and an indication to such effect is respectfully requested, in due course.

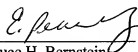
SUMMARY

Applicants submit that the present application is in condition for allowance, and respectfully requests an indication to that effect. Applicants have argued the allowability of the claims and pointed out deficiencies of the applied references. Accordingly, reconsideration of the outstanding Official Action and allowance of the present application and all the claims therein are respectfully requested and is now believed to be appropriate.

Applicants note that this amendment is being made to advance prosecution of the application to allowance, and should not be considered as surrendering equivalents of the territory between the claims prior to the present amendment and the amended claims. Further, no acquiescence as to the propriety of the Examiner's rejection is made by the present amendment. All other amendments to the claims which have been made in this amendment, and which have not been specifically noted to overcome a rejection based upon the prior art, should be considered to have been made for a purpose unrelated to patentability.

Should the Examiner have any questions, the Examiner is invited to contact the undersigned at the below-listed telephone number.

Respectfully submitted,  
Masaru SHIRAI et al.

  
Bruce H. Bernstein  
Reg. No. 29,027

May 11, 2010  
GREENBLUM & BERNSTEIN, P.L.C.  
1941 Roland Clarke Place  
Reston, VA 20191  
(703) 716-1191

Enoch E. Peavey  
Reg. No. 57,686